# MONTANA DEPARTMENT OF TRANSPORTATION

# HIGHWAY PROJECT COST ESTIMATING AND MANAGEMENT (HPCE)



CONTRACT#: 308059, RESEARCH PROJECT#: 8189

**DATE: JULY 3, 2007** 

MONTHLY PROGRESS REPORT # 4

PERIOD: JUNE 1, 2007 - JUNE 30, 2007







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#### INTRODUCTION

Sierra Transportation Engineers, Inc. (STE) is pleased to provide its fourth monthly progress report for Montana Department of Transportation (MDT) contract number 308059, titled "Highway Project Cost Estimating and Management (HPCE)." This monthly progress report covers the period June 1, 2007 to June 30, 2007.

The overall objective of this project is to develop a comprehensive document to determine the best practice of efficient highway cost estimating for Montana. Upon completion of this research, recommendations are to be made for improvements to the current cost estimation process.

The specific tasks identified in the project work plan are:

- Task 1 MDT's Structure, Operations, and Current Process
- Task 2 Critical Review of NCHRP 8-49 Literature Review
- Task 3 Recommendations
- Task 4 Consultant Visits and Schedule
- Task 5 Develop Detailed Strategic Procedure
- Task 6 Implementation Plan

The following paragraphs describe the work accomplished during this reporting period under each task.

# TASK 1 - MDT'S STRUCTURE, OPERATIONS, AND CURRENT PROCESS

During this reporting period STE continued its efforts on understanding MDT's current structure, operations and procedures for cost estimation. A draft data request template called MDT HPCE data request template was created using MS Excel spreadsheets. STE provided an electronic copy of the template to MDT for review and comment on April 13, 2007. During the month of June, STE team worked closely with the MDT Project Manager and Project Panel to customize the data request template to follow MDT practices. A conference call was held on June 29 between MDT and STE to finalize the data request template. Once the template is finalized, it will be used to provide project cost data to STE on at least 10 (and preferably 20) MDT projects. As discussed in the kick-off meeting, STE will request data on projects of different types, categories, and from different districts. STE will also ask for projects that were under, over, and close to the original base cost.

During this reporting period STE continued working with the panel on finalizing definitions for base cost and project categories and providing feedback on some of the terminologies used in the MDT HPCE data request template.

STE also reviewed the MDT response to its pre-trip questions and survey for different project stages to MDT. The different stages of the project include: planning, programming, advanced planning/preliminary design, final design, ad/bid/award, and construction.

## Worked planned for next month

STE will continue reviewing the current MDT structure, operations, and processes. In particular, STE will work with the panel to finalize the MDT HPCE data request template. STE will also schedule a visit to MDT to gather additional information about MDT current cost estimating practices by interviewing MDT personnel and private entities involved the process. STE will work closely with the project panel to identify the interviewees and schedule the meetings.

#### TASK 2 – CRITICAL REVIEW OF NCHRP 8-49 LITERATURE REVIEW

During this reporting period STE continued its review of NCHRP Report 574, "Guidance for Cost Estimation and Management for Highway Projects During Planning, programming, and Preconstruction." STE is utilizing the NCHRP 8-49 findings in developing questionnaires for its upcoming interviews with MDT personnel.

#### Worked planned for next month

STE will continue reviewing the NCHRP 8-49 report and its literature review.

#### TASK 3 – RECOMMENDATIONS

STE started work on this task during the month of June. Information gathered from pre-trip questions and surveys along with the ongoing literature review is being used to develop the framework for project recommendations.

# Worked planned for next month

Work on the recommendation task will continue in July. Documents received from MDT on its current project cost estimation practices will be reviewed during July, 2007.

#### TASK 4 – CONSULTANTS VISITS AND SCHEDULE

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

Consultant visits will be scheduled for August-September.

#### TASK 5 – DEVELOP DETAILED STRATEGIC PROCEDURE

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity planned.

#### TASK 6 - IMPLEMENTATION PLAN

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

## Worked planned for next month

No activity planned.

### PROJECT SCHEDULE AND FINANCIAL SUMMARIES

Figure 1 shows the project expenditures versus planned budget for each task. Figure 2 represents the cumulative project expenditures versus budget for the entire project to date.

All project activities are per schedule and the project is within planned budget. STE does not foresee any problems to report.

\$250,000 As of June 30, 2007 ■ Cumulative to Date ■ Budget \$200,000 \$150,000 \$100,000 \$50,000 \$0 Task 1 Task 2 Task 4 Task 5 Task 6 Task 3 **Total Project** 

Figure 1. Expenditures Versus Planned Budget for Each Task

Figure 2. Cumulative Expenditures Versus Budget

